or next to streams, for example — are left unploughed. Farmers have also left broader field margins alongside hedgerows uncultivated, which have proved a vital asset for many species.

Estimates suggest that, in the UK, the rotational set-aside is most likely the first to be ploughed, with 75–80 per cent vulnerable to cultivation whereas only about 25–30 per cent of the permanent set-aside is thought likely to be ploughed up.

Although the EU has declared the policy temporary and subject to review, many fear that it may become permanent. With the rise in wheat prices over the last 18 months, the EU has "become increasingly worried about food security," says Andrew Clark, head of policy for the UK's National Farmers' Union. "There's been a political sea change, and this is the driver to get rid of set-aside."

Sir Donald Curry, the architect of European agri-environment schemes, chaired a committee of UK government agencies, conservation groups, landowners and farmers, which reported to the UK environment secretary in April. And another report published this month by Natural England, the body funded by the government to oversee conservation, highlights the broader threats to many species. "For too long the natural world has been treated as a luxury," says Helen Phillips, chief executive. "Wildlife is being squeezed into ever diminishing spaces."

But building on the set-aside provisions, the EU has created agri-environmental schemes through which farmers can receive payment for managing land within their farms for environmental benefit. "Environmental schemes alone will not compensate for set-side," says Martin Doughty, chair of Natural England. "The removal of set-aside is unfortunate and will make a significant difference to conservation unless there is something to replace it."

Conservationists are now scrutinising the EU's complex agri-environment schemes to assess the extent to which they may alleviate the loss of set-aside. These schemes aim to guarantee that farmers deliver a minimum level of environmental public good through compliance with standards linking agricultural production to environmental benefit. As the environment changes, achieving these becomes more complicated. "Because of climate change and changes in agriculture we are looking for multiple benefits," says Doughty. "Water, carbon storage, biodiversity, access, education, local socio-economic benefits — we need public support. We have to have incentives land managers can buy into and farmers find attractive."

But the sheer scale of the potential loss of set-aside dwarfs the offsetting benefits of agri-environmental schemes to many concerned about environmental issues.

One of the most threatened group of plants in the UK, and elsewhere in Europe where intensive agriculture is carried out, is the arable 'weeds'. These are the plants that grew alongside crops until the development of herbicides almost wiped them out. Plants such as corncockle, cornflower, corn marigold and pheasant's eye have all benefited from the emergence of agriculture more than 10,000 years ago but are now threatened. They have been rehabilitated to some small extent by set-aside and agri-environmental schemes over the past 20 years but conservationists are now worried about their future.

The Royal Society for the Protection of Birds, Europe's largest wildlife charity, is also very worried about the loss of set-aside and potential threat to agri-environmental projects if set-aside is lost. It has been involved in two flagship projects in the UK that have seen the development of small but thriving populations of the cirl bunting in Devon and the stone curlew in East Anglia, through detailed collaboration with farmers and agri-environment funding support for their efforts. But such projects are now under threat with the loss of set-aside. "We are extremely worried about what this means for wildlife especially as the European Commission have failed to put a realistic proposal on the table for anything to replace the wildlife benefits of set-aside," says Gareth Morgan, the RSPB's head of agricultural policy.

Conservationists are concerned that the great benefits that have accumulated over the past 20 years of EU support for environmental schemes within active agricultural regions are not entirely lost as a result of a short-term reversal of policy in response to the sudden global soaring of food prices.

Condor's new neighbours

A new Californian state park should help preserve several different ecosystems but there are worries in the detail for its impact on one iconic species. **Cyrus Martin** reports.

In a deal heralded by California governor Arnold Schwarzenegger as an example of how "we can protect California's environment at the same time we pump up our economy", environmentalists and a land developer have reached an agreement that will allow the preservation of 240,000 acres of wilderness just north of Los Angeles. This land, known as Tejon Ranch, is unusual and relevant to conservation efforts in that it encompasses four different ecosystems: MoJave Desert grasslands, San Joaquin Valley oak woodlands, Tehachapi pine forests, and coastal mountain ranges. These ecosystems serve as habitats for several endangered species including the famous California Condor that has only recently been brought back from the brink of extinction and remains classified as critically endangered.

As part of the deal a large portion of the land (178,000 acres) will be placed under a conservation easement to be managed by the Tejon Ranch Conservatory. Another 62,000 acres is designated as 'optional property' meaning that environmental groups, potentially with government support, will have the opportunity to purchase the land, providing they can do so by a pre-agreed date. In exchange, the environmental groups, which include the Sierra Club and the National Resources Defense Council, have agreed to abandon legal action challenging development of the remaining 30,000 acres.

While the preservation of a piece of pristine wilderness roughly the size of the island of Martinique might seem like an unmitigated triumph for the conservation cause, some have questioned whether the wool hasn't been pulled over the public's eyes. In a statement issued by the Center for Biological Sciences, one of the environmental organizations that refused to sign the deal, the center's Conservation Director Peter Galvin said, "While there are a few aspects of today's accord we can celebrate,

New moves: The condor may get additional protection in the new Californian state park, but it may acquire some worrying new neighbours. (Photo: Rick and Nora Bowers/Alamy.)

including the potential acquisition of 49,000 acres for a state park, this deal contains numerous 'poison pill' provisions, including the development of Tejon Mountain Village in the heart of condor critical habitat and Centennial, the largest single development ever to be proposed in California."

The Tejon Mountain Village project will result in the building of 3,400 homes in the Tehachapi mountains, while Centennial is a planned community of 23,000 homes slated to occupy the southern edge of the ranch. These real-estate projects aside, the dissenters argue that most of the land pledged for conservation is not in any case suitable for development, a fact that seems to diminish the apparent value of the deal. In addition, there is concern that funds necessary to purchase the 62,000 acres of optional property will never materialize. The signatories have alluded to the use of state bonds to pay for the land, but this hinges on the uncertain budgetary priorities of the state of California in the coming years.

With regard to the California Condor, potential threats to habitat, such as those imposed by the developments at Tejon Ranch, are cause for concern given the resources invested in saving this species and its still precarious future. In 1987, the 22 remaining wild California Condors were captured and bred in captivity, followed by a progressive release back into the wild that has resulted in the current population of 299 birds. All told, the effort to save the condor has cost over 35 million dollars and represents the most expensive Conservation Program ever undertaken by the US. In the light of this effort, and the uncertain future of the condor, as well as the other endangered species, it is clear why some have viewed the Tejon Ranch deal with a sceptical eye.

Q & A

Uta Frith

Uta Frith is Emeritus Professor of Cognitive Development at University College London and visiting professor at Aarhus University, where she participates jointly with Chris Frith in a Niels Bohr Project called 'Interacting minds – a biological basis'. She studied first in Germany and later at London University. From 1968 to 2006 she was based at UCL as an MRC scientist. From 1998 to 2006 she was Deputy Director of UCL's Institute of Cognitive Neuroscience. Her work has been concerned with neuro-developmental disorders, mainly autism and dyslexia. She has contributed some of the major cognitive theories explaining the signs and symptoms of these disorders. By studying the processes that might underlie specific cognitive deficits, she has been able to link cognitive mechanisms to behaviour on the one hand, and to brain function on the other. Uta Frith is a fellow of the British Academy, the Academy of Medical Sciences and the Royal Society. She recently obtained a Woman of Outstanding Achievement in SET award marked by the portrait on this page.

What turned you on to biology in the first place? Actually I am an impostor. I slid into biological sciences only dimly aware that I was doing so. It started by trying to have a look at 'everything' my university offered. I was registered as a student of History of Art, but this subject soon disillusioned me. It seemed to me that you had to go over well-trodden ground and find one small obscure corner for your doctorate. But, did I really want to be the specialist for the charming glass windows of a little chapel on the French border? It was no better in my other subject, Old Bulgarian. I had chosen this because I had loved ancient Greek and because an inspiring teacher suggested that I should take up this esoteric subject as a route to studying the structure of languages. This seemed like a serious scholarly thing to do, but it was really hard, and the vowel shifts in Slavonic languages did not really excite me after all. I looked around